

WHAT IS CLAIMED IS

1. A wrist exerciser comprising:
 - a casing comprising upper and lower casing members mounted together to form a substantially spherical shape, the upper casing member defining an opening;
 - a retention ring fixed in the casing substantially corresponding to a great circle of the sphere of the casing, diametrically opposite holes being defined in the retention ring;
 - a rotor having opposite shafts rotatably received in the holes for rotatably supporting the rotor in the casing;
 - at least one illumination element mounted on an outside surface of the rotor;
 - a power source contained in the rotor;
 - a control circuit contained in the rotor and in electrical connection with the power source and the illumination element, the control circuit selectively lighting the illumination element; and
 - transmission means comprising:
 - a transmitter mounted in the rotor and comprising an interface circuit connected to the control circuit and a connection member in connection with the interface circuit, and
 - a transmission cable having opposite ends forming first and second connectors, the first connector being releasably mateable with the connection member of the transmitter of the rotor and the second connector being adapted to connect an external device for transferring an electrical signal from the external device to the control circuit.
2. The wrist exerciser as claimed in Claim 1, wherein the upper and lower casing members are made of light transmitting material.
3. The wrist exerciser as claimed in Claim 1, wherein the rotor defines a circumferential groove.
4. The wrist exerciser as claimed in Claim 1, wherein the illumination element comprises a light emitting diode.

5. The wrist exerciser as claimed in Claim 1, wherein the power source comprises:
a permanent magnet attached to the retention ring;
a winding mounted to the rotor and substantially opposing the permanent magnet
whereby when the rotor rotates, the winding cuts through magnetic lines of
force of the magnet thereby inducing an electrical current in the winding;
and
a rectification and regulation circuit receiving and processing the electrical
current to supply electrical power to the illumination element and the
control circuit.
6. The wrist exerciser as claimed in Claim 1, wherein the power source comprises a
battery and a switch that selectively connects the battery to the control circuit and
the illumination element to power the control circuit and the illumination
element.
7. The wrist exerciser as claimed in Claim 1 further comprising a mounting flange
formed around one of the holes of the retention ring and wherein the permanent
magnet comprises a ring mounted to and supported by the mounting flange with
the shaft of the rotor extending through the ring of the magnet.
8. The wrist exerciser as claimed in Claim 1, wherein the control circuit comprises
programmable means.
9. The wrist exerciser as claimed in Claim 1, wherein the control circuit comprises
a microprocessor comprising an output terminal connected to the illumination
element, the microprocessor comprising a control program for selectively
lighting the illumination element by sending an electrical signal at the output
terminal.
10. The wrist exerciser as claimed in Claim 9, wherein the microprocessor comprises
a number of different control programs and a selection switch for selecting one
of the control programs with which the microprocessor lights the illumination
element.

11. The wrist exerciser as claimed in Claim 1, wherein the interface circuit comprises a Universal Serial Bus (USB) based interface.
12. The wrist exerciser as claimed in Claim 1, wherein the interface circuit comprises an RS232 interface.
13. The wrist exerciser as claimed in Claim 1, wherein the connection member of the rotor comprises a mini USB socket connector while the first connector of the transmission cable is a mini USB plug connector.
14. The wrist exerciser as claimed in Claim 1, wherein the connection member of the rotor comprises an RS232 connector.
15. The wrist exerciser as claimed in Claim 1, wherein the first connector of the transmission cable comprises a mini USB plug connector.
16. The wrist exerciser as claimed in Claim 1, wherein the first connector of the transmission cable comprises a USB plug connector.
17. The wrist exerciser as claimed in Claim 1, wherein the first connector of the transmission cable comprises an RS232 connector.
18. The wrist exerciser as claimed in Claim 1 further comprising an electronic counter mounted to the casing.